

REMARKS

Applicants initially acknowledge the courtesy extended to Applicants' counsel by the Examiner in a telephone discussion which took place on September 7, 2007. During that discussion, Applicants indicated their intent to cancel claims 1-23 and 26-28, and the Examiner acknowledged Applicants' position with respect to the remaining claims in this application, specifically noting that independent claims 94, 103, and 114 and the claims dependent thereon, which had primarily been rejected over Mantelle et al. '022, did appear to be free of the prior art. This was based at least in part upon Applicants having pointed out that similar claims had been allowed in their parent application based upon arguments quite similar to those which have already been presented in Applicants' prior responses herein. With respect to independent claims 67, 76, 85, and 91, and the claims dependent thereon, Applicants repeated their prior contentions with respect to the patentability of those claims, again based upon many additional arguments which had previously been presented and accepted by the U.S. Patent and Trademark Office. In response, the Examiner referenced the position taken in response to the amendment under Rule 116 filed on March 28, 2007, but indicated that the Examiner would consider additional arguments with respect to the scope of these claims and the prior art cited hereagainst. Such arguments will be presented hereinbelow. It is, in any event, Applicants' position that all of the remaining claims in this application, namely, claims 67, 69-76, 78-111, and 113-119, are allowable over all of the art cited herein, and allowance of these claims is therefore respectfully solicited.

Claims 67, 69-76, 78-88, and 91-93 have been rejected as being unpatentable over Miranda et al. under 35 U.S.C. § 103(a). After repeating his prior position with

respect to the Miranda et al. disclosure, the Examiner concludes that it would be obvious to make a composition comprising an acrylate to deliver selegiline in order to achieve the beneficial effect of transdermal delivery, in view of Miranda et al. As to the claimed hydrophobic acrylic polymer, Miranda et al. is said to teach at least 50% butyl acrylate, rendering the polymer hydrophilic. In response to applicants' argument that applicants claimed away from propylene glycol, the Examiner then stated that propylene glycol has a boiling point at 1 Atm of 45.5°C, allegedly falling within the claimed temperature ranges. After Applicants then pointed out that this was incorrect, and that propylene glycol actually has a boiling point of 188°C, and is clearly a low volatility solvent of this invention, the Examiner then pointed out that Miranda et al. also discloses the use of ethanol, a high volatility solvent. This rejection is respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

Returning to the basic nature of the present invention, applicants have emphasized from the outset the fact that, in accordance with the present invention, one is able to tailor the release rate of the claimed highly plasticizing drugs having a low molecular weight and being liquid at or about room temperature, as well as their permeation rate through the skin, by dealing with the overall nature of these transdermal systems, and the solvent utilized therein, and by not focusing solely upon the specific adhesive utilized therein. Thus, in accordance with the present claims, the only solvents used in producing therapeutic adhesive formulations including a highly plasticizing drug are relatively high volatility solvents, such as ethanol, which are removed upon drying. Less volatile solvents such as propylene glycol, however, which remain in these systems even after drying at these temperatures, as is

discussed in the specification at ¶[0026], are specifically excluded from the presently claimed adhesive formulations. Once again, since Miranda et al. specifically teaches one to utilize such solvents, it is abundantly clear that this reference cannot at the same time be said to somehow teach one to exclude these solvents, as required by these claims. Miranda et al. thus clearly teaches away from the present invention, and the entire basis for the Examiner's rejection based on Miranda et al. is believed to be insupportable.

As applicants have previously pointed out, Miranda et al. does not suggest the presently claimed invention, which requires that at least one solvent be present, but that it explicitly cannot be a solvent having the low volatility at the specific temperatures required thereby, such as propylene glycol. Miranda et al., however, teaches a system with no solvent at all, or a system with the solvents set forth at column 13 thereof, including propylene glycol. It is thus clear that Miranda et al. does not teach, suggest or disclose the presently claimed invention, including the solvent system required by these claims. Applicants have also previously pointed out that claim 67 is not limited to acrylic polymers but covers a broader class of polymer systems. It was thus pointed out that, when Miranda et al. discloses an embodiment in which plasticizing drugs are used which might not require any solvents at all, the failure of the teachings in Miranda et al. regarding the present invention become even more apparent. Thus, when utilizing systems other than acrylate polymer systems, it might well be necessary to include solvents such as those disclosed and claimed in the present application in connection with those drugs. Miranda et al. clearly fails to recognize this fact by teaching the use of no solvents at all or the use of co-solvents including propylene glycol, which are excluded from the present

claims and whose presence would clearly prevent one from realizing the results obtainable herewith.

Finally, the Examiner has referred to the fact that Miranda et al. discloses the use of ethanol as a solvent for use therein, and that the present claims, which cover the transdermal delivery systems hereof, either before or after drying, thus cover these systems prior to drying, with ethanol contained therein. The Examiner, of course, is quite correct. Applicants again repeat their continued contention that it is not the exclusion of high volatility compounds such as ethanol which characterize this invention, but the exclusion of low volatility compounds such as propylene glycol. High volatility compounds such as ethanol will be driven off during drying, and will thus not create problems with plasticization of these adhesive systems. It is thus a crucial element of this invention, as spelled out in the claims, that both before and after drying, these systems must be substantially free of low volatility solvents, such as propylene glycol, which will not be driven off during conventional drying, at temperatures of from 100° to 200°F. Thus, the Examiner's reference to ethanol in Miranda et al. does not in any way alter the inapplicability of that reference to the present claims, nor the clearly patentable nature thereof.

Claims 67, 69-70, 72, 73, 76, 78, 79, 82, 82, 85-88, and 91-93 have been rejected as being unpatentable over Sablotsky under 35 U.S.C. § 103(a). As in the case with Miranda et al., the Examiner contends that it would be obvious to make a composition comprising an acrylate to deliver a drug to achieve the beneficial effect of transdermal delivery in view of Sablotsky. The Examiner then incorporates the statements as well as a response to applicants' argument following the first 103 motivation to combine herein. This rejection is

respectfully traversed in view of the above amendments and arguments and for the reasons set forth hereinafter.

The fact is that the disclosure in Sablotsky is quite similar to that in *Miranda et al.*, and once again, there is no suggestion whatsoever in Sablotsky to employ a solvent system including at least one solvent but where that solvent does not include a nonvolatile solvent as defined by these claims, such as propylene glycol. Once again, the Examiner's position with respect to this disclosure, and its inclusion of propylene glycol, which clearly has a boiling point which excludes it from the present claims, makes it clear that Sablotsky is not a reference which renders these claims unpatentable. To the contrary, like *Miranda et al.*, it teaches away from the present invention and would not lead one of ordinary skill in the art to achieve the improved results set forth in this application by utilizing this invention. Once again, like *Miranda et al.*, the inclusion of ethanol in the disclosure of Sablotsky simply underlines the nature of this invention. The presence of such high volatility solvents as ethanol can clearly be tolerated within these claims since these solvents will all be driven off during the drying process, and will therefore not contribute to any unwanted plasticization thereafter

Claims 1-3, 5, 8-10, 12-15, 18-23, and 26-28 have been rejected as being unpatentable over *Lhila et al.* under 35 U.S.C. § 103(a). However, in view of the above noted cancellation of these claims, it is clear that this rejection is no longer applicable hereto.

Claims 1-9, 11-14, 16-23, 26-28, 67 and 69-84 have been rejected as being unpatentable over *Wolter et al.* under 35 U.S.C. § 103(a). Applicants again take note of the cancellation of claims 1-9, 11-14, 16-23, and 26-28, clearly obviating this portion of this rejection. As for claims 67 and 69-84, the Examiner himself in the advisory action dated

April 24, 2007, stated that "the recitation of propylene glycol in Wolter et al is applied only to claims 1-9, 11-14, 16-23, 26-28." It thus appears that the Examiner himself agrees that this reference is inapplicable to claims 67 and 69-84. In any event, Applicants would also repeat their prior contentions with respect to the similarities between Wolter et al. and both Miranda et al. and Sablotsky. Wolter et al. adds nothing to the prior art which is not also included within the disclosures of both Miranda et al. and Sablotsky, and these claims are similarly patentable thereover.

Applicants have in fact previously pointed out that Wolter et al. specifically discloses that when a salt of the drug is utilized the ability for it to diffuse may be improved by concomitant use of a conventional solubilizer "such as glycerol 1,2-propanediol, the monomethyl or monoethyl ether of diethylene glycol, 2-octyldodecanol, the laurate, palmitate, stearate or oleate of sorbitol, C₈/C₁₀ ethoxylated glycerides, and ethoxylated oleic glycerides." (See col.2 11.54-58.) Applicants have thus previously stressed that, particularly with respect to claims such as claim 67, this patentee not only fails to disclose compositions substantially free of low volatility solvents which are not driven off during drying at from 100 to 200°F, but, to the contrary, actually requires that such solvents be incorporated into their system. At this point, however, in view of the prior amendments to claims such as claim 67, in which it is now required that at least one solvent be present, but that that solvent system nevertheless be substantially free of any of these low-volatility solvents, including compounds such as propylene glycol, it is clear that the "optional" nature of the teaching in Wolter et al. does not result in the claimed product. Thus, with these optional

solvents, either they are not present at all, in which case the use of the solvent system required by these claims is not suggested, or the solvents are present, but they include the low-volatility solvents which are excluded from these claims. Furthermore, when Wolter et al., at column 3 thereof, describes his second layer (b), applicants once again urge that this composition includes compounds which would not meet the limitations of the present claims, including the very same nonvolatile solvents which are specifically excluded by the present claim language. It is, therefore, respectfully submitted that all of these claims are clearly patentably distinguishable over this reference, and reconsideration and allowance of these claims is respectfully solicited.

In addition, the Examiner had referred to Exhibit A, referred to at page 27 of Applicants' Amendment dated March 28, 2007. The Examiner has stated that the Exhibit was not of record. Therefore, another copy of that Exhibit A is attached hereto.

It is therefore respectfully submitted that based upon the cancellation of claims 1-23 and 26-28, the Examiner's agreement with respect to the allowability of claims 94-111 and 113-119, and the additional clear allowability of claims 67, 69-76 and 78-93, that all of the claims in this application are now clearly in condition for immediate allowance, and such action is therefore respectfully solicited.

Once again, however, if the Examiner for any reason does not agree with this position, it is respectfully requested that the Examiner telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

Finally, if there are any additional charges in connection with this amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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